$-0.5<\beta rt<-0.2$

where βrt is a lateral magnification at a telephoto end of optical part disposed closer to an image plane than said at least part of the fourth lens unit so as to have a component of a direction perpendicular to the optical axis of said zoom lens.

REMARKS

Applicant respectfully requests reconsideration of this application in view of the foregoing amendment and following remarks.

Status of the Claims

Claims 1-10 are pending in this application. Among them, claims 1 and 9 are independent. Claims 1-10 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim. Claims 5 and 7 have been rejected under 35 U.S.C. §112, first paragraph, as being as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 1 and 9 have been rejected under 35 U.S.C. §102 (b) as being anticipated by U.S. Patent No. 6,025,962 to Suzuki. Claims 1-10 have been rejected under 35 U.S.C. §103 (a) as being unpatentable over one of the combinations between U.S. Patent No. 6,025,962 to Suzuki, U.S. Patent No. 6,008,952 to Yamamoto, U.S. Patent No. 5,000,549 to Yamazaki and U.S. Patent No. 4,498,741 to Ishiyama. By this amendment, claims 1, 4, 7 and 9 have been amended. Claim 11 has been added. No new matter has been added by this amendment.

Rejection under 35 U.S.C. §112

Claims 5 and 7 have been rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains to make and/or use the invention.

The Examiner indicates that "since the Office does not have the software for calculating the focal lengths of the lens element(s)...therefore it is unclear whether the condition claimed has supported from the data provided in the specification..."

Claim 5 recites that a condition $0.01<fis/f4<0.8$ is satisfied where fis is a focal length of said lens component of negative refractive power and f4 is a focal length of said fourth lens unit. That is, the claim recites the range of the ratio of focal length of the lens component of negative refractive power and the focal length of the fourth lens unit. Claim 7 recites that a condition $-0.8<\beta rt<-0.1$ is satisfied where βrt is a lateral magnification at a telephoto end of an optical member.

Applicant believes that one of ordinary skill in the art would understand the numerical ranges of the ratios without any software to calculate the focal lengths.

Claims 1-10 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter.

The Examiner indicated that (1) the "unit" in line 5 of claim 1 should be -- units --, and (2) the term "optical axis" in lines 9-10 of claim 1 should be -- optical axis of said zoom lens -- for clarification of the feature claimed.

Claim 1 has been amended as shown above in accordance with the Examiner's indication. Additionally, referring to page 14, lines 21-26 of the specification, the lens unit may be moved

in a direction oblique to the optical axis and swung around a point on the optical axis. Each has a component of the direction perpendicular to the optical axis of the lens moving direction.

The Examiner also indicated that "a lens component" in claim 4 should be changed to --said lens component--.

Claim 4 has been amended as shown above in accordance with the Examiner's indication.

Reconsideration and withdrawal of the rejections of claims 1-10 under 35 U.S.C. §112 is respectfully requested.

Rejection under 35 U.S.C. §102

Claims 1 and 9 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,025,962 to Suzuki (hereinafter "Suzuki").

Suzuki discloses a zoom lens system with an anti-vibration function which is provided with a first through fifth lens group each having positive, negative, positive, negative and positive refractive power, respectively. Suzuki shows that the fourth lens group G4 is used to prevent vibration by moving the lens group in a direction substantially perpendicular to the optical axis. (See column 3, line 63 - column 4, line 8 of Suzuki)

The zoom lens disclosed in Figs. 1 and 4 of Suzuki displace images by moving the entire fourth lens unit. Whereas, in claims 1 and 9, the images are displaced by moving a part of the fourth lens unit.

Accordingly, each of claims 1 and 9 is neither anticipated by nor rendered obvious in view of Suzuki for at least the reasons discussed above.

Reconsideration and withdrawal of the rejections of claims 1 and 9 under 35 U.S.C. §102(b) is respectfully requested.

Rejection under 35 U.S.C. §103

Claims 2 and 10 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Suzuki in view of U.S. Patent No. 6,008,952 to Yamamoto (hereinafter "Yamamoto").

Yamamoto is cited as disclosing the charged-coupled device (CCD) to receive the image from the zoom lens.

Claims 3 and 4 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Suzuki in view of U.S. Patent No. 5,000,549 to Yamazaki (hereinafter "Yamazaki").

Yamazaki is cited as disclosing a two-lens units zoom lens in which the shake of the photo-graphic image is compensated by driving the first lens sub-group I-1 or the second lens sub-group I-2. (See column 3, lines 38-48)

Claims 1 and 9 have been further rejected under 35 U.S.C. §103(a), as being unpatentable over U.S. Patent No. 4,498,741 to Ishiyama (submitted by the applicant, hereinafter "Ishiyama") in view of Suzuki.

The Examiner states that Ishiyama discloses a zoom lens system having five lens units as claimed and Suzuki teaches that the fourth lens unit is moved in a direction perpendicular to the optical axis of the zoom lens system.

Claims 2 and 10 have been further rejected under 35 U.S.C. §103(a), as being unpatentable over Ishiyama in view of Suzuki as applied to claims 1 and 9, and in further view of Yamamoto that discloses a CCD.

Claims 3, 4, 6 and 8 have been further rejected under 35 U.S.C. §103(a), as being unpatentable over Ishiyama in view of Suzuki as applied to claim 1, and further in view of Yamazaki that discloses a two-lens units zoom lens in which the shake of the photo-graphic

image is compensated by driving the first lens sub-group I-1 or the second lens sub-group I-2.

As Applicant understand it, both Suzuki and Ishiyama fail to show or suggest at least one feature of independent claims 1 and 9 (i.e., the images are displaced by moving a part of the fourth lens unit).

Accordingly, each of claims 2-4, 6, 8, depending from claim 1 directly or indirectly, and claim 10, depending from claim 10, is neither anticipated by nor rendered obvious in view of the references cited by the Examiner (i.e., Suzuki, Yamamoto, Yamazaki and Ishiyam), either alone or in combination.

Reconsideration and withdrawal of the rejections of claims 1-5, 6 and 8-10 under 35 U.S.C. §102(b) is respectfully requested.

Applicants have not individually addressed the rejections of the dependent claims because Applicants submit that the foregoing places the independent claims from which they respectively depend in condition for allowance. Applicants however reserve the right to address such rejections of the dependent claims should such be necessary.

Claim 11 has been added to recite the claimed invention in an alternative manner. Specifically, claim 11 recites similar features to claims 1 and 9, as amended. Moreover, claim 11 further recites that the zoom lens satisfies the condition of $-0.5<\beta rt<-0.2$ where βrt is a lateral magnification at a telephoto end of optical part. Applicant notes that the zoom lenses as shown in Figs. 1 and 4 of Suzuki have βrt of -0.88 and -0.64.

Accordingly, Applicant believe that the added claim is in condition for allowance and such action is respectfully requested.

AUTHORIZATION

A petition for a two-month extension of time along with the associated fee is enclosed, extending the date for responding until October 15, 2002. Should an additional extension of time be required to render this paper timely filed, such extension is hereby petitioned and the Commissioner is authorized to charge any other fees necessitated by this Amendment, or credit any overpayment to our Deposit Account No. 13-4500 (Order No. 1232-4767). **A DUPLICATE COPY OF THIS SHEET IS ENCLOSED.**

An early and favorable examination on the merits is respectfully requested.

Respectfully submitted,
MORGAN & FINNEGAN LLP

Dated: September 27, 2002

By: _____
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Version with Markings to Show Changes Made

IN THE CLAIMS

Please amend claims 1, 4, 7 and 9 as follows.

1. (Amended) A zoom lens comprising, in order from an object side,

a first lens unit of positive refractive power[,];

a second lens unit of negative refractive power[,];

a third lens unit of positive refractive power[,];

a fourth lens unit of negative refractive power[,]; and

a fifth lens unit of positive refractive power,

wherein [said zoom lens moves a predetermined lens unit] predetermined lens units move during zooming from a wide-angle end to a telephoto end so that a separation between said first and second lens units increases, a separation between said second and third lens unit decreases, a separation between said third and fourth lens units increases, and a separation between said fourth and fifth lens unit decreases, and

wherein an image is displaced by moving [at least part of] a part of the fourth lens unit so as to have a component of a direction perpendicular to an optical axis of said zoom lens.

4. (Amended) A zoom lens according to claim 3, wherein said fourth lens unit includes a lens component of positive refractive power and [a] said lens component of negative refractive power.

7. (Amended) A zoom lens according to claim 3, wherein a condition $-0.8<\beta rt<-0.1$ is satisfied where βrt is a lateral magnification at a telephoto end of [an optical member] optical

part disposed closer to an image plane than said lens component of negative refractive power that is moved so as to have the component of the direction perpendicular to [the axial] the optical axis of said zoom lens.

9. (Amended) An optical apparatus comprising a zoom lens, said zoom lens comprising, in order from an object side,

a first lens unit of positive refractive power[,];

a second lens unit of negative refractive power[,];

a third lens unit of positive refractive power[,];

a fourth lens unit of negative refractive power[,]; and

a fifth lens unit of positive refractive power,

wherein [said zoom lens moves a predetermined lens unit] predetermined lens units move during zooming from a wide-angle end to a telephoto end so that a separation between said first and second lens units increases, a separation between said second and third lens units decreases, a separation between said third and fourth lens units increases, and [a separation between] said fourth and fifth lens units decreases, and

wherein an image is displaced by moving [at least part of] a part of the fourth lens unit so as to have a component of a direction perpendicular to an optical axis of said zoom lens.

Please add new claim 11 as follows.

11. (New) A zoom lens comprising in order from an object side,

a first lens unit of positive refractive power;

a second lens unit of negative refractive power;

a third lens unit of positive refractive power;

a fourth lens unit of negative refractive power; and

a fifth lens unit of positive refractive power,

wherein predetermined lens units move during zooming from wide-angel end to a telephoto end so that a separation between said first and second lens units increases, a separation between said second and third lens units decreases, a separation between said third and fourth lens units increases, and said fourth and fifth lens units decreases,

wherein an image is displaced by moving at least part of the fourth lens unit so as to have a component of a direction perpendicular to an optical axis of said zoom lens, and

wherein said zoom lens satisfies the following condition:

$-0.5<\beta rt<-0.2$

where βrt is a lateral magnification at a telephoto end of optical part disposed closer to an image plane than said at least part of the fourth lens unit so as to have a component of a direction perpendicular to the optical axis of said zoom lens.